



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200
Fax 613 632-5246

20NR-50
Job Sheet 194623



Part No: 20NR-50

Job Qty: 11 pcs

Part Name: Stiffener - Offset Holes



Part Weight: 0 lbs

Status: New

Priority: Medium

Job Created: 5/6/19

Job Tracking No:

Due Date: 5/15/19

Created By: Marie Lajeunesse

Type: SOLD

Description:

Note: DWG 20NR-50 Rev 2 IPP Rev. A 19.05.06 New issue DP Verify DD

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier	Sign-off
					Setup Hrs	Run Hrs		
110	Conventional Mill - 1	11 pcs	5/15/19	5/15/19	0.00	1.10	Conventional Mill - 1	
							Conventional Mill - 2	
120	QC 2	11 pcs	5/15/19	5/15/19	0.00	0.00	QC 2 - 1	
							QC 2 - 12	
							QC 2 - 14	
							QC 2 - 17	
							QC 2 - 19	
							QC 2 - 2	
							QC 2 - 20	
							QC 2 - 22	
							QC 2 - 23	
							QC 2 - 25	
							QC 2 - 32	
							QC 2 - 33	
							QC 2 - 35	
							QC 2 - 39	
							QC 2 - 4	
							QC 2 - 40	
							QC 2 - 44	
							QC 2 - 45	
							QC 2 - 48	
							QC 2 - 49	
							QC 2 - 50	
							QC 2 - 51	
							QC 2 - 52	
							QC 2 - 57	
							QC 2 - 62	
							QC 2 - 63	
							QC 2 - 8	
							QC 2 - 66	
							QC 2 - 64	



Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
CANADA
TEL.: 1 613 632-5200
Email: sales@dartaero.com
www.dartaerospace.com

Container No: S179976



Part: 20NR-50

Job No: 194623

Serial No/Batch: S179976

Revision: 2

Inspector:

Exp Date:

Instructions:

Date: 05/10/19

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5/6/2019

[Dart Hawkesbury] Job Sheet - Lajeunesse, Marie

130 QC 8	11 pcs	5/15/19	0.00 0.00	QC 2 - 65	
				QC 2 - 5	
				QC 2 - 71	
				QC 8 - 12	
				QC 8 - 14	
				QC 8 - 17	
				QC 8 - 20	
				QC 8 - 25	
				QC 8 - 3	
				QC 8 - 32	
				QC 8 - 33	
				QC 8 - 35	
				QC 8 - 39	
				QC 8 - 4	
				QC 8 - 44	
				QC 8 - 45	
				QC 8 - 49	
				QC 8 - 58	
				QC 8 - 8	8-19-05-10
				QC 8 - 9	
				QC 8 - 68	
				QC 8 - 67	
				QC 8 - 1 (A)	
				QC 8 - 47	
				QC 8 - 40	
				QC 8 - 52	
				QC 8 - 23	
135 Outsource - 1 - Heat Treat	11 pcs	5/15/19		GR0002-VE ATL002	2019-05-10
140 Packaging 2-1 - Receive - B4B	11 pcs	5/15/19	0.00 0.00	Packaging 2 - 1 - B4B	
				Packaging 2 - 2 - B4B	
				Packaging 2 - 3 - B4B	
				Packaging 2 - 5 - B4B	
				Packaging 2 - 4 - B4B	
				Packaging 2 - 6 - B4B	
				Packaging 2 - 7 - B4B	
				Packaging 2 - 8 - B4B	
				Packaging 2 - 9 - B4B	
				Packaging 2 - 10 - B4B	
				Packaging 2 - 11 - B4B	
				Packaging 2 - 12 - B4B	
				Packaging 2 - 13 - B4B	
				Packaging 2 - 14 - B4B	
				Packaging 2 - 15 - B4B	
				Packaging 2 - 16 - B4B	
				Packaging 2 - 17 - B4B	
				Packaging 2 - 18 - B4B	
				Packaging 2 - 19 - B4B	
				Packaging 2 - 20 - B4B	
				Packaging 2 - 21 - B4B	
				Packaging 2 - 22 - B4B	
				Packaging 2 - 23 - B4B	
				Packaging 2 - 24 - B4B	
				Packaging 2 - 25 - B4B	
				Packaging 2 - 26 - B4B	
				Packaging 2 - 27 - B4B	
				Packaging 2 - 28 - B4B	
				Packaging 2 - 29 - B4B	
				Packaging 2 - 30 - B4B	
				Packaging 2 - 31 - B4B	

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				Packaging 2 - 32 - B4B	
				Packaging 2 - 33 - B4B	
				Packaging 2 - 34 - B4B	
				Packaging 2 - 35 - B4B	
				Packaging 2 - 36 - B4B	
150 QC 6	11 pcs	5/15/19	0.00 0.00	QC 6 - 9	
				QC 6 - 68	
				QC 6 - 61	
				QC 6 - 40	
160 Outsource - 13 - Zinc Plating	11 pcs	5/15/19		GRO002-VC	5
170 QC 6	11 pcs	5/15/19	0.00 0.00	QC 6 - 9	
				QC 6 - 68	
				QC 6 - 61	
				QC 6 - 40	
180 Packaging 3-1 - Stock - B4B	11 pcs	5/15/19	0.00 0.00	Packaging 3 - 1 - B4B	
				Packaging 3 - 2 - B4B	
				Packaging 3 - 3 - B4B	
				Packaging 3 - 4 - B4B	
				Packaging 3 - 5 - B4B	
				Packaging 3 - 6 - B4B	
				Packaging 3 - 7 - B4B	
				Packaging 3 - 8 - B4B	
				Packaging 3 - 9 - B4B	
				Packaging 3 - 10 - B4B	
				Packaging 3 - 11 - B4B	
				Packaging 3 - 12 - B4B	
				Packaging 3 - 13 - B4B	
				Packaging 3 - 14 - B4B	
				Packaging 3 - 15 - B4B	
				Packaging 3 - 16 - B4B	
				Packaging 3 - 17 - B4B	
				Packaging 3 - 18 - B4B	
				Packaging 3 - 19 - B4B	
				Packaging 3 - 20 - B4B	
				Packaging 3 - 21 - B4B	
				Packaging 3 - 22 - B4B	
				Packaging 3 - 23 - B4B	
				Packaging 3 - 24 - B4B	
				Packaging 3 - 25 - B4B	
				Packaging 3 - 26 - B4B	
				Packaging 3 - 27 - B4B	
				Packaging 3 - 28 - B4B	
				Packaging 3 - 29 - B4B	
				Packaging 3 - 30 - B4B	
				Packaging 3 - 31 - B4B	
				Packaging 3 - 32 - B4B	
				Packaging 3 - 33 - B4B	
				Packaging 3 - 34 - B4B	
				Packaging 3 - 35 - B4B	
				Packaging 3 - 36 - B4B	
190 QC 21 - SA	11 pcs	5/15/19	0.00 0.00	QC 21 - SA - 21	
				QC 21 - SA - 70	
				QC 21 - SA - 53	
Part Op 110 - (Manufacture as per dwg) 1-Machine as per DWG. 2-Debur Descriptions: 120 - (QC2- Inspect parts off machine FAI/FAIB 130 - (QC8- Inspect parts - second check) Engrave BATCH number using MARKTRONIC engraver as per DWG. 135 - (Outsource process - Heat Treat)1-Issue P/O to Metcore ; P/O _____ RC; 45-50 2-Bead blast 3-Material; 4140 4- Certificate of Conformity is required 140 - (Receive & Inspect for Damage & Mat'l Certs) 160 - Outside Processing - Zinc Plating)-Issue P/O to GROUPE ALTECH: P/O _____ -Zinc plate, ASTM B633					

5/6/2019

[Dart Hawkesbury] Job Sheet - Lajeunesse, Marie

TYPE 2 SC2 -Color; yellow -Material type; 4140 -Certificate of Conformity is required
170 - (QC6- All purchased or subcontracted products)

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
MT-4140-B-1.000X1.250	4140 Steel Bar 1.000 X 1.250	8.4260 ft (.766 ea)	110-Conventional Mill - 1	SC61015

Job Allocations

Operation	Component Part	Required	Inventory	Allocated
110-Conventional Mill - 1	MT-4140-B-1.000X1.250	8	6	0

Part Specifications

Specifications could not be found.

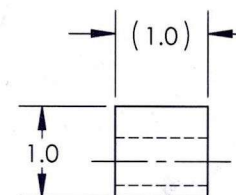
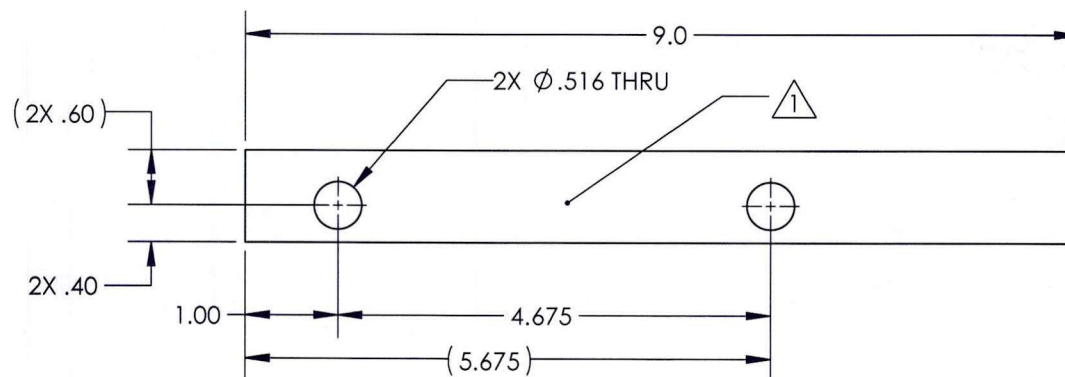
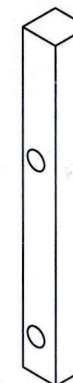
Plex 5/6/19 3:03 PM Dart.lajeunesse.marie

MAT
4580
8.404
SCRAP
0.336

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REVISIONS				
REV	ECR	DESCRIPTION	DATE	INITIAL
1		AS DRAWN BY CANAM	7/18/2013	CFS
2	14-0101	CH'D TITLE BLOCK WAS RED BARN IS DART. ADDED MACHINE ENGRAVE NOTE.	7/30/2014	DJN
				RW

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 19462345
190506



NOTE:

1 MACHINE ENGRAVE BATCH NUMBER.

DART AEROSPACE	
TITLE STIFFENER - OFFSET HOLES	
DWG NO. 20NR-50	REV 2
MAT'L 4140	DRAWN BY: CANAM
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES	APPROVED <i>D Weil</i>
.XXX ± .005 FRACTIONS ± 1/32	HEAT TREAT RC 45-50
.XX ± .01 ANGLES ± 5°	FINISH CAD PLATE YELLOW
.X ± .1	SPEC QQ-P-416F, TYPE II, CLASS II
1. BREAK ALL SHARP EDGES .015 x 45° OR .015R	USED ON MODEL
2. DIMENSIONAL LIMITS APPLY AFTER PLATING	
SCALE 1:2	DATE 12/1/1995 SHEET 1 OF 1

ASSY QTY	ASSY QTY	B/O	Part #	UNIT QTY	Description	Material	B/O INFORMATION OR SPECIFICATIONS
			20NR-50	1	STIFFENER - OFFSET HOLES	4140	1 X 1 X 9-1/8

Entered: _____ Date: _____



WORK ORDER NON-CONFORMANCE / ROUTE UPDATE

NCR No. _____

Route update only ☐

Job: _____ Part No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐	DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Eng. (Non-AW) ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Engineering ☐ Water Jet ☐ Supplier ☐ Quality ☐			
Date :	Sequence #:	QTY Affected :		MRB (QSI042)	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor	
Root Cause ☐ Operator ☐ Manufacturing Process ☐ Equip/Tooling ☐ Handling/Preservation ☐ Material ☐ Product Improvement ☐ Process Improvement ☐ Human Factors		FAULT CATEGORY ☐ Pressure/Forced ☐ Bending ☐ Crushing ☐ Cracks ☐ Crimp/Kink/Ripple/Wave/Twist ☐ Marks/Chatter ☐ Mislabeled ☐ Contamination ☐ Misaligned/off center ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Incomplete/Unclear Instructions ☐ Drill Holes ☐ Fit/Function ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain Direction ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set/Set-up ☐ Positioned Wrong ☐ Outside Tolerance ☐ Drawing ☐ Finish ☐ Part Lost/Missing ☐ Misread			
Other/Details:					



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER

POHB043441



Supplier: ATL002-VC
Atlantic Heat Treat 2001
401 Frankcom
Ajax
ON
L1S 1R4 Canada
Phone: 866 257 6395

Attention: Ananth, Nimmy

Ship To: 1270 Aberdeen Street
Hawkesbury
ON
K6A 1K7 Canada
Phone: 613-632-5200

PO No: POHB043441

PO Date: 5/10/19

Due Date: 5/17/19

Purchase Order

Revision:

Revision Date:

Ship-To Contact: Phone:

Pymt Terms: Net 30

Freight Terms:

Special Comments:

Items

Line Item	Job	Part	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
1	194623	20NR-50	Stiffener - Offset Holes (Outsource process - Heat Treat)1-Issue PO _____ RC; 45-50 2-Bead blast 3-Material; 4140 4- Certificate of Conformity is required	Firmed X11	-	5/17/19	11 pcs	0 pcs	11 pcs	\$15.4545/pcs	\$170.00
2	194624	20NR-73	Stiffener (Outsource process - Heat Treat)1-Issue P/O _____ RC; 45-5 2-Bead blast 3-Material; 4140 4- Certificate of Conformity is required	Firmed X10	-	5/17/19	10 pcs	0 pcs	10 pcs	\$17.00/pcs	\$170.00
3	194618	20NR-37	Keeper 1-Issue P/O; _____ RC 45-48 2-Bead blast 3-Material type; 4140 4- Certificate of Conformity is required	Firmed X12	-	5/17/19	12 pcs	0 pcs	12 pcs	\$14.1666/pcs	\$170.00
Grand Total:											\$510.00

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Dart Aerospace Ltd.
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Canada

Tel (613) 632-5200

PURCHASE ORDER

POHB043441



Order Notes

Procurement Quality Clauses

A005 right of entry
A012 chemical and physical test report
A016 personnel qualification
A017 raw material identification (as applicable)

A022 Apical Processing
A024 process certifications
A026 certification of material conformance

A041 quality management system
A042 dart notification by supplier
A043 retention of quality documents

A048 counterfeit parts avoidance, detection, mitigation and disposition program

A049 supplier awareness

Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.

A handwritten signature in black ink, appearing to be "JH" or similar, written over a large, loopy flourish.

Plex 5/17/19 1:58 PM Dart.Guerin.Kimberley

Atlantic Heat Treating (2001) Ltd

Order No.: 166387

Ship Date: 16/5/2019

Shipping Ticket

Sold To: 1448
DART AEROSPACE LTD.
1270 ABERDEEN ST

HAWKESBURY ON K6A 1K7

Ship To: 163314
DART AEROSPACE LTD.
1270 ABERDEEN ST

HAWKESBURY ON K6A 1K7

Page 1 of 1

Purchase Order Number	Packing List No	Customer Job No	Route	Carrier
POHB043441				

Quantity	Part No. / Part Name / Part Description	Pounds
11 PCS	MATERIAL 4140 ANNEAL AND HEAT TREAT TO 45-50RC SANDBLAST, C OF C, PRT# 20NR-50, JOB# 194623	

Container Type	# Of Containers	Cust Cont Id	Container Type	# Of Containers	Cust Cont Id
BOX	1				

NOTICE: OUR LIABILITY IS LIMITED TO OUR INVOICE CHARGES ONLY

Shipped Complete

Quantity Shipped: 11

Pounds Shipped: 28.00

Order No.: 166387

Shipped Complete

Quantity Shipped: 11.00

Received By:

Date:

Pounds Shipped: 28.00

Sold To: DART AEROSPACE LTD.

Shipped ON: 05/16/2019

DB
47K

5-16-19

Certification

Date: 05/16/2019

Entry Date: 05/16/2019

Page: 1 of 1

To:DART AEROSPACE LTD.
1270 ABERDEEN ST

Purchase Order No.: POHB043441

Packing List No.:

HAWKESBURY ON K6A 1K7

Material: 4140

We are pleased to provide you with the following Certificate of Compliance.

Quantity	Part Number / Part Name / Part Description	Pounds
11	11 PCS MATERIAL 4140 ANNEAL AND HEAT TREAT TO 45-50RC SANDBLAST, C OF C, PRT# 20NR-50, JOB# 194623	28

Insp. Type	Scale	Minimum	Maximum	Number	Other
------------	-------	---------	---------	--------	-------

Customer Requirements:

Harden rockwell

Results:Harden ROCKWE 45. 50. 47. TESTED AS PER SAMPLING PLAN
HEAT TREATED TO 47 RC AS PER CUSTOMER REQUESTDAS
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STATEMENT OF LIMITED LIABILITY (PLEASE READ CAREFULLY). ALL WORK IS ACCEPTED SUBJECT TO THE FOLLOWING CONDITIONS: It is recognized that even after employing all the scientific methods known to us, hazards still remain in metal treating. THEREFORE, OUR LIABILITY SHALL NOT EXCEED TWICE THE AMOUNT OF OUR CHARGES FOR THE WORK DONE ON ANY MATERIAL (FIRST TO REIMBURSE FOR THE CHARGES AND SECOND TO COMPENSATE IN THE AMOUNT OF THE CHARGES), EXCEPT BY WRITTEN AGREEMENT SIGNED BY THE METAL TREATER. THE CUSTOMER, BY CONTRACTING FOR METAL TREATMENT, AGREES TO ACCEPT THE LIMITS OF LIABILITY AS EXPRESSED IN THIS STATEMENT TO THE EXCLUSION OF ANY AND ALL PROVISIONS AS TO LIABILITY ON THE CUSTOMER'S OWN INVOICES, PURCHASE ORDERS OR OTHER DOCUMENTS. IF THE CUSTOMER DESIRES HIS OWN PROVISIONS AS TO LIABILITY TO REMAIN IN FORCE AND EFFECT, THIS MUST BE AGREED TO IN WRITING, SIGNED BY AN OFFICER OF THE TREATER. IN SUCH EVENT, A DIFFERENT CHARGE FOR OUR SERVICES REFLECTING THE HIGHER RISK TO TREATER, SHALL BE DETERMINED BY THE TREATER AND CUSTOMER. THE TREATER MAKES NO EXPRESS OR IMPLIED WARRANTIES AND SPECIFICALLY DISCLAIMS ANY IMPLIED WARRANTY OF THE FITNESS FOR A PARTICULAR PURPOSE OR MERCHANTABILITY, AS TO THE PERFORMANCE OF CAPABILITIES OF THE MATERIAL AS HEAT TREATED, OR THE HEAT TREATMENT. THE AFOREMENTIONED LIMITATION OF LIABILITY STATED ABOVE IS SPECIFICALLY IN LIEU OF ANY EXPRESS OR IMPLIED WARRANTY, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS, AND OF ANY OTHER SUCH OBLIGATION ON THE PART OF THE TREATER. No claim for shortage in weight or count will be entertained unless presented within five (5) working days after receipt of materials by customer. No claim will be allowed for shrinkage, expansion, deformity, or rupture of material in treating or straightening, except by prior written agreement, as above, nor in any case for rupture caused by or occurring during subsequent grinding. Whenever we are given material with detailed instructions as to treatment, our responsibility shall end with the carrying out of those instructions. Failure by a customer to indicate plainly and correctly the kind of material (i.e., proper alloy designation) to be treated, shall cause an extra charge to be made to cover any additional expense incurred as a result thereof, but shall not change the limitation of liability stated above. Customer agrees there will be no liability on the treater in contract for any special, indirect or consequential damages arising whatsoever, including but not limited to personal injury, property damage, loss of profits, loss of production, recall or any other losses, expenses or liabilities allegedly occasioned by the work performed on the part of the treater. It shall be the duty of the customer to inspect the merchandise immediately upon its return, and in any event claims must be reported prior to the time that any further processing, assembling or any other work undertaken. OUR LIABILITY TO OUR CUSTOMERS SHALL CEASE ONCE ANY FURTHER PROCESSING, ASSEMBLING OR ANY OTHER WORK HAS BEEN UNDERTAKEN ON SAID MATERIAL. No agent or representative is authorized to alter the above conditions, except by writing duly signed by an officer of treater.


KEAN SHEPHERD
QUALITY CONTROL

ATLANTIC HEAT TREATING 2001 LTD



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER

POHB043499



Supplier: GRO002-VC
Group Altech
2455 Halpern
St Laurent
QC
H4S 1N9 Canada
Phone: 514-335-3666
Fax: 514-335-3868

Attention: Grenon, Sylvie

Ship To: 1270 Aberdeen Street
Hawkesbury
ON
K6A 1K7 Canada
Phone: 613-632-5200

PO No: POHB043499

PO Date: 5/21/19

Due Date: 5/24/19

Purchase Order

Revision:

Revision Date:

Ship-To Contact: Phone:

Via: Ground

Pymt Terms: Net 60

Freight Terms:

Special Comments:

E-MAILED
2019-05-22

Items

Line Item	Job	Part	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
1	194623	20NR-50	Stiffener - Offset Holes Outside Processing - Zinc Plating)-Issue P/O to GROUPE ALTECH: P/O -Zinc plate, ASTM B633 TYPE 2 SC2 -Color; yellow -Material type; 4140 -Certificate of Conformity is required	Firmed	-	5/24/19	11 pcs	0 pcs	11 pcs	\$4.2857/pcs	\$47.14
				10 X		MAY 27 2019					
2	194624	20NR-73	Stiffener Outside Processing - Zinc Plating)-Issue P/O to GROUPE ALTECH: P/O -Zinc plate, ASTM B633 TYPE 2 SC2 -Color; yellow -Material type; 4140 -Certificate of Conformity is required	Firmed	-	5/24/19	10 pcs	0 pcs	10 pcs	\$4.2857/pcs	\$42.86
				10 X		MAY 27 2019					
Grand Total:											\$90.00

DAS
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Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER

POHB043499



Order Notes

Procurement Quality Clauses

A005 right of entry
A012 chemical and physical test report
A016 personnel qualification
A017 raw material identification (as applicable)

A022 Apical Processing
A024 process certifications
A026 certification of material conformance

A041 quality management system
A042 dart notification by supplier
A043 retention of quality documents

A048 counterfeit parts avoidance, detection, mitigation and disposition program

A049 supplier awareness

Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.

A handwritten signature in black ink, appearing to be "K. Guerin", located to the right of the Order Notes section.

Plex 5/22/19 8:38 AM Dart.Guerin.Kimberley

(019371-1)

019371- 1

DART AEROSPACE LTD
1270 ABERDEEN STREET
HAWKESBURY, ON, K6A1K7
CANADA
BUYER:

RECEIVED
MAY 24 2019
DART AEROSPACE LTD.

Page 1 of 1